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Development of low temperature scanning tunneling microscope and test results at university of ulsan (Korea)¹ SANG-UI KIM, JUNGDAE KIM, Department of Physics and EHSRC, University of Ulsan, Ulsan, 680-749, Korea — Thanks to the development of software and electronics in the last few decades along with advanced UHV technology, the scanning tunneling microscope (STM) has made a tremendous impact on various fields of surface science. In order to build up an STM system and make it perform as expected, every component of STM needs to serve the others well. Recent progress on the development of low temperature STM at University of Ulsan (Korea) will be discussed. Advantages of our STM system are following: (1) compact design with *in-situ* sample preparation and tip/sample exchange capability, (2) simple and effective vibration isolation damper, (3) copper-stainless steel welding technique for cryostat, (4) simple liquid helium bath pumping setup for tunneling spectroscopy. Results of recent performance test will be discussed as well. *kimjd@ulsan.ac.kr

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